

Notice of Allowability	Application No.	Applicant(s)	
	09/903,024	MURPHY, JAMES MORGAN	
	Examiner	Art Unit	
	Christopher R. Magee	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment after final submitted on 8/1/2006.
2. ☒ The allowed claim(s) is/are 1-7, 9-14 and 17-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|--|

CR Magee

8/18/06

Angel Castro C
ANGEL CASTRO
PRIMARY EXAMINER

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. The reply filed 08/01/2006 was applied to the following effect: All relevant objections and rejections are withdrawn as being satisfied.

Drawings

3. The drawings (Figure 8) were received on 02/01/2006. These drawings are acceptable.

Reasons for Allowance

4. Claims 1-7, 9-14 and 17-27 are allowed.

This application is for an OPEN CHANNEL TORSION BEND SECTION.

The following is an examiner's statement of reasons for allowance:

- **Claim 1** specifies a head suspension which requires:

"the open channel being positioned in the load path such that the forces transmitted between the base and the load beam pass through the open channel in their entirety."

Berding et al. (US 6,307,715 B1) disclose a hinge region 80 having a torsional stiffening brace 92 as shown in Figure 4. The flaps 88, 90 are formed from the bend section material. Berding '715 teaches the load forces applied at one side of the hinge region circumvent the stiff brace 92 by traveling along the uncut regions 82, 84. Berding '715 does not teach or suggest the open channel being positioned in the load path such that the forces transmitted between the base

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and the load beam pass through the open channel in their entirety as claimed in the present invention.

Therefore, these features, in combination with other features of claim 1, are not anticipated by, nor made obvious over, the closest prior art of record of Berding et al. (US 6,307,715 B1).

- **Claim 13** specifies a suspension member which requires:

“and in combination a portion of the first and second rails extend across all of the bend section width” and “wherein the second and third planes are at an angle less than 90° from the first plane or the second and third planes are at an angle greater than 90° from the first plane.”

Berding et al. (US 6,307,715 B1) disclose in Figure 4 the flaps 88, 90 span much of the width of the hinge region 80 but neither of the flaps individually or in combination extend across uncut regions 84, 86. Berding '715 teaches the load forces applied at one side of the hinge region circumvent the stiff brace 92 by traveling along the uncut regions 82, 84. Therefore, Berding '715 does not teach or suggest in combination a portion of the first and second rails extend across all of the bend section width and wherein the second and third planes are at an angle less than 90° from the first plane or the second and third planes are at an angle greater than 90° from the first plane as claimed in the present invention.

Therefore, these features, in combination with other features of claim 13, are not anticipated by, nor made obvious over, the closest prior art of record of Berding et al. (US 6,307,715 B1).

- **Claim 19** specifies a head suspension which requires:

“whereby the rail includes at least two segments along the rail width and the base of the load beam is coupled to the bend section between two of the rail segments.”

Berding et al. (US 6,307,715 B1) disclose in Figure 4 the flaps 88, 90 span much of the width of the hinge region 80 but neither of the flaps individually or in combination extend across uncut regions 84, 86. Therefore, Berding '715 does not teach or suggest whereby the rail includes at least two segments along the rail width and the base of the load beam is coupled to the bend section between two of the rail segments as claimed in the present invention.

Therefore, these features, in combination with other features of claim 19, are not anticipated by, nor made obvious over, the closest prior art of record of Berding et al. (US 6,307,715 B1).

- **Claim 20** specifies a suspension member which requires:

“whereby the base or the load beam is attached to the stiffening means within the width of the first or second rail.”

Berding et al. (US 6,307,715 B1) disclose in Figure 4 the flaps 88, 90 span much of the width of the hinge region 80 but neither of the flaps individually or in combination extend across uncut regions 84, 86. Berding '715 teaches the load forces applied at one side of the hinge region circumvent the stiff brace 92 by traveling along the uncut regions 82, 84. Therefore, Berding '715 does not teach or suggest whereby the base or the load beam is attached to the stiffening means within the width of the first or second rail as claimed in the present invention.

Therefore, these features, in combination with other features of claim 20, are not anticipated by, nor made obvious over, the closest prior art of record of Berding et al. (US 6,307,715 B1).

- **Claim 21** specifies a head suspension which requires:

“the rail includes at least two separate segments along the rail width.”

Hanrahan ‘252 shows a rail 66 that extends along a transverse axis, which is perpendicular to a longitudinal axis of the beam. Hanrahan does not teach or suggest separating the rail into at least two separate segments as claimed in the present invention.

Allen ‘381 exhibits a bend section 137 comprises first 343 and second 344 rails being separated in the longitudinal axis direction of the bend section 137, the rails forming an open channel (Figure 9). Neither rails 343 or 344 are split into two distinct segments.

Last, Murakami ‘044 shows a one-piece rail (not numbered) that extends the transverse axis that is perpendicular to the beam longitudinal axis. Murakami does not teach or suggest separating the rail into at least two separate segments as claimed in the present invention.

Therefore, these features, in combination with other features of claim 21, are not anticipated by, nor made obvious over, the closest prior art of record of Hanrahan (US 5,870,252), Allen et al. (US 5,894,381) and/or Murakami et al. (US 6,212,044 B1).

- **Claim 22** specifies a head suspension which requires:

“the open channel being positioned in the load path such that the forces transmitted between the base and the load beam pass through the open channel in their entirety.”

Berding et al. (US 6,307,715 B1) disclose a hinge region 80 having a torsional stiffening brace 92 as shown in Figure 4. The flaps 88, 90 are formed from the bend section material. Berding ‘715 teaches the load forces applied at one side of the hinge region circumvent the stiff brace 92 by traveling along the uncut regions 82, 84. Berding ‘715 does not teach or suggest the

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open channel being positioned in the load path such that the forces transmitted between the base and the load beam pass through the open channel in their entirety as claimed in the present invention.

Therefore, these features, in combination with other features of claim 22, are not anticipated by, nor made obvious over, the closest prior art of record of Berding et al. (US 6,307,715 B1).

- **Claim 26** specifies a suspension member bend section which requires:

“whereby the plate is configured for mounting to the load beam or the suspension member within the width of the rail..”

Murakami '044 shows a one-piece rail (not numbered) that extends the transverse axis that is perpendicular to the beam longitudinal axis. Murakami does not teach or suggest separating the rail into at least two separate segments as claimed in the present invention.

Berding et al. (US 6,307,715 B1) disclose a hinge region 80 having a torsional stiffening brace 92 as shown in Figure 4. The flaps 88, 90 are formed from the bend section material. Berding '715 teaches the load forces applied at one side of the hinge region circumvent the stiff brace 92 by traveling along the uncut regions 82, 84. Berding '715 does not teach or suggest a plate being configured for mounting to the load beam or the suspension member within the width of the rail as claimed in the present invention.

Therefore, these features, in combination with other features of claim 26, are not anticipated by, nor made obvious over, the closest prior art of record of Murakami et al. (US 6,212,044 B1) and/or Berding et al. (US 6,307,715 B1).

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5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Magee whose telephone number is (571) 272-7592. The examiner can normally be reached on M-F, 8: 00 am-4: 30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Christopher R. Magee
Patent Examiner
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ANGEL CASTRO
PRIMARY EXAMINER

August 18, 2006
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